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ABSTRACT

This study investigates the effects of setting an overt level of aspiration on the standing long jump performance of mildly and moderately retarded institutionalized children. Thirty-three mildly retarded and seven moderately retarded students were randomly assigned to either an overt level of aspiration (OLA) group or a control group. Each subject was asked to do his best on every trial. After each trial, OLA subjects were shown how far they had jumped and then asked to point to a line on the mat where they expected to be able to jump on the next trial. The control group subjects were asked to do their best and were shown how far they had jumped in the preceding trial. The evidence that no significant differences in long jump performances were found within or between groups indicates that overt level aspiration does not appear to act as an effective motivating technique in increasing the performance of mentally retarded children, and, therefore, these subjects were not able to make a meaningful connection between an overtly committed goal and succeeding performance scores. (PD)

The Effects on Motor Performance of Setting an Overt Level of Aspiration by Mentally Retarded Students.

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Introduction

The immediate level of aspiration that an individual has in a learning-performance situation is certainly one of the factors which determines how well that individual learns or performs that particular task. An expressed level of aspiration may further indicate the individual's level of reality- that is - is his level of aspiration 'consistant' with past performance? Does it in fact accurately echo present estimation of his or her ability or is it vastly different from past or present success or failure indices?

Researchers, clinicians, and educators working with the mentally retarded note that mentally retarded individuals have difficulty in making decisions and in giving appraisals (realistic or otherwise) of their present and future goals. The importance of these major handicaps, as they relate to learning and performance, can be appreciated in light of comments by such a highly respected instructional theorist as Jerome Bruner who maintains that decision making and goal setting are vital factors for all students in the learning environment.

Bryant Cratty - one of the recognized leaders in motor learning research contends that it is very important to obtain from students - general as well as specific feelings about their potential to perform various tasks. He maintains that it is the teachers responsibility to continuously attempt to ellicit goals from the student and perhaps more importantly to aid the retarded student in formulating achievable goals. Cratty obviously feels that the student's ability, inability, willingness, or refusal to make

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such estimates exerts positive or negative influence upon their total self-concept. He also maintains that if there is considerable difference between the student's performance and his feelings about his performance, then a performance concept problem exists.

An example would be simply asking a student how far he can jump in a standing long jump - before he jumps and again on succeeding trials. If he refuses to express an overt goal or if he makes a gross over or under estimate, then in all likelihood there is some distortion in his motor self-concept. An individual - normal or retarded who is unable or unwilling to adjust to reality - that is bring the level of aspiration and actual performance close together - presents a serious problem - for keeping in touch with reality is an almost universally present need in all individuals.

Now - level of aspiration literature is certainly plentiful and yet none was found which directly employed the mentally retarded student in this very important human behavior paradigm. Further - recognizing that immediate as well as future goal setting is an important positive motivational device which generally has a favorable effect on the performance of normal subjects - it's logical to attempt to ask and answer some questions about the level of aspiration construct relative to mentally retarded students.

Procedure

It was the purpose of this investigation to study the effects of setting an overt level of aspiration on the standing long jump performance of mildly and moderately retarded institutionalized children. The experimental hypothesis was that by setting an overt level of aspiration - mentally

retarded students would be striving for a clearly committed observable goal and as such, their performance would be superior to mentally retarded students who were not asked to set an overt level of aspiration.

Forty mildly and moderately retarded institutionalized students from the Lubbock State School were randomly assigned to one of two groups: (1) Overt level of aspiration group, and (2) Control group. Of the 40 subjects, 33 were mildly retarded and 7 were moderately retarded. Four of the seven moderately retarded were in the overt level of aspiration group and 3 were in the control group. The chronological age means were 15.56 years for the OLA group and 15.65 for the control group. The mean IQ's were 52.45 for the OLA group and 54.0 for the control group - the groups were fairly homogenious.

The task used was the standing long jump. This task was selected for several important reasons.

1. According to Frank's definition of LA - the task used should be one familiar to the subject - the subject should have past experienct in it and a performance reference in setting future LA. - This criteria was met as the standing long jump is one of the physical fitness tests administered to the students in the regular physical education program at the Lubbock State School.

2. Because of the nature of the subjects a task that was a relatively simple gross motor skill was deemed necessary - it was felt that the standing long jump met this criteria.

3. A task where an immediate knowledge of performance could be given to the student -- both visual and verbal - again the standing long jump met this criteria.

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4. A task where a simple direct level of aspiration could be elicited. This criteria was also met for the subjects in the OLA group were simply shown how far they had jumped on the last trial and asked to point to a line on the mat where they expected to be able to jump to on the next trial.

Now the instructions used and the manner in which the subject indicates LA scores are very important in all LS studies and perhaps more so when dealing with mentally retarded subjects. The aim, of course, is to try to elicite from the subject his true expected LA for the next trial - realizing that as Lewin indicated long ago, a number of different types of LA scores can be given - true LA, hoped for LA, and an ideal IA. The most common and successful technique employed in eliciting true LA scores is to ask the subject to indicate the score he expects to be able to reach on the next trial - this is the technique used in this study.

Upon entering the testing room (an exercise room at the state school) the subject was engaged in casual conversation for a few moments. Most of the subjects, upon seeing the long jump mat, went right to it and were eager to begin. Each subject was asked to do his best on every trial. After each trial the OLA subjects were shown how far they had jumped and then asked to point to a line on the mat where they expected to be able to jump on their next trial. A one to two minute rest was given between trials. This was done for several reasons, (1) to give the subjects a short rest - especially during later trials and (2) it was found that some of the OLA subjects needed that long to understand that they were to indicate a LA score, and it took some that long to come to a decision on their next LA.

The subjects in the control group were simply asked to do their best on each trial and were shown how far they had jumped on the preceeding trial.

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Measurements obtained were rounded to the nearest one-quarter inch.

Results

Figure I shows the performance curves for the OLA and control groups. The OLA group did perform better than the control group, however, not significantly so - for Table I indicates that the differences were not significant at the .05 level of confidence.

A within group t-test was used to determine if the groups had improved significantly in long jump performance from trial one to trial six. The differences between the means were not significant for either group - indicating that they did not improve performance over six trials. The t's were 1.26 for the OLA and .70 for the control - not significant at the .05 level.

Looking at goal discrepancy scores for the OLA group - the goal discrepancy score being the difference between the actual performance score and next LA score - figure III indicates that there were indeed quite large discrepancies in the subjects feelings about his performance ability and his actual level of performance. Table IV indicates that these differences were significant at the .05 level in all five trials - an F value of 4.10 being required for significance with 1 and 38 degrees of freedom.

In the LA construct it is generally considered that the subject takes into consideration not only his last performance but all preceeding performances when giving a new LA score (whether this is true for mentally retarded individuals is certainly open for debate.) Thus if one takes the mean of all previous performances as it compares to each succeeding LA this will give a more accurate relationship between the two scores. This method is also said to reveal a personality consistency not evident in the more traditional discrepancy scores.

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Table V reveals that the differences between mean performance score and LA were not significant - indicating that in effect these subjects did reveal a personality consistancy by having large goal discrepancy scores over trials.

The evidence that no significant differences in long jump performance were found within as well as between groups leads to several conclusions.

1. Indicating an overt LA does not appear to act as an effective motivating technqiue in increasing the performance of mentally retarded children.

2. The evidence that LA is not an effective motivationg techniques indicate that these subjects were not able to make a meaningful connection between an overtly committed goal and succeeding performance scores. This possibility is very real considering Cratty's and others comments that retarded students often have a difficult time setting realistic goals or setting any overt goals. This last point is interesting and relevant for - of the original 20 subjects in the OLA group - five had to be replaced because they either refused after one or two trials to face up to the challenge of setting an overt LA or becasue they became extremely uncomfortable in the LA setting.

The fact that rather large goal discrepancies were found on all trials further indicates that a meaningful relationship was not reached by these students between performance and subsequent LA. This no doubt lends support to Cratty's statement that these students have a major distortion in their motor-concept and as such are not very realistic in their estimates of their performance potential.

If the conclusions arrived at are true then several questions remain.

1. Can these students learn or using a term more often associated with

mentally retarded - can these students be <u>trained</u> to use OLA type situations as an effective positive motivating technique.

2. Can these students learn or be trained to maintain a more realistic performance concept and if so what effect will this have on their performance socres in various tasks (assuming transfer of course).

These and other questions have been put in a research proposal which we hope will allow us to develop a specific training program using various teaching methods to help answer these questions.

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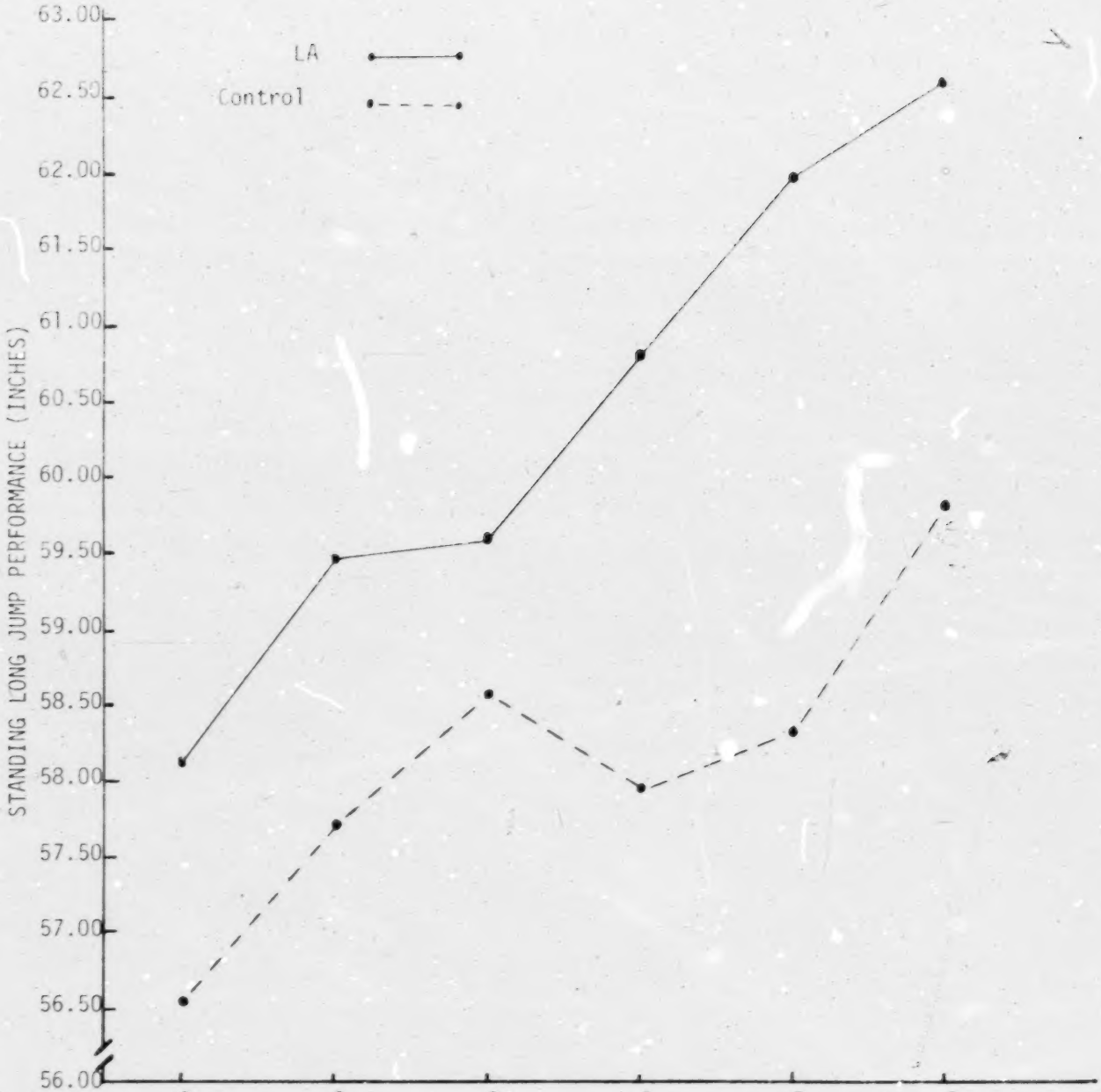

Figure 1

Standing Long Jump Means for Six Trials

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Table 1

Analysis of Variance of Performance Scores

Source of Variation	df	SS	MS	F
Groups	1	313.39	313.39	1.68
Trials	5	344.67	68.93	.37
Interaction	5	50.50	10.10	.05
Errors	228	42453.94	186.20	
Total	229	43162.50		

Table 11

Within group t values for Standing Long Jump: Trials One and Six

Group	N	Trial One M	Trial One S.D.	Trial Six M	Trial Six S.D.	t
Overt Level of Aspiration	20	57.64	8.99	62.07	[illegible].00	1.26
Control	20	56.04	14.07	59.28	15.29	.70

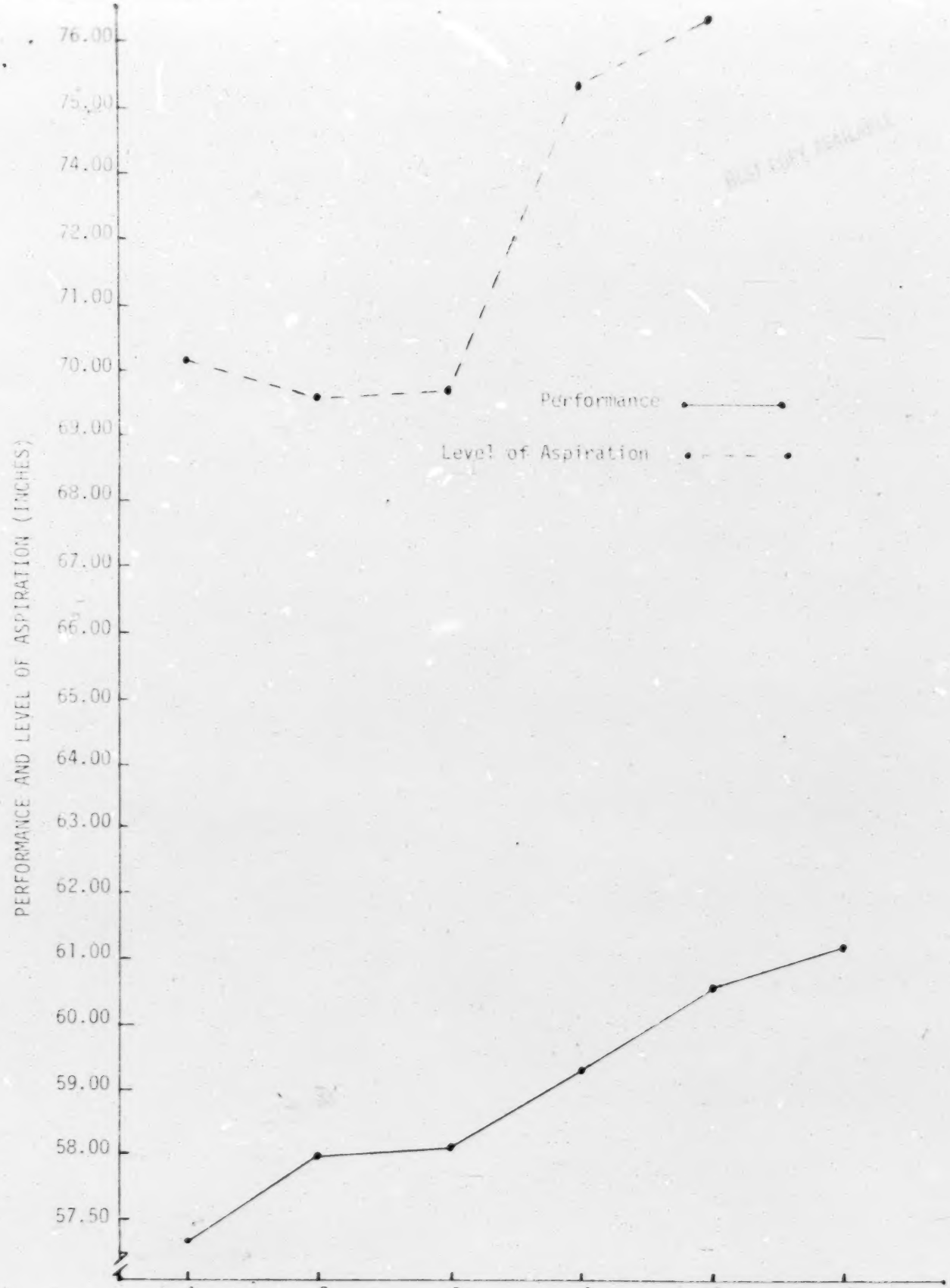

Figure III

Long Jump Means for Six Trials, Level of Aspiration Means for Five Trials

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Table 1:

Summary of Analysis of Variance Between Performance and Level of Aspiration

Source of Variance	df	SS	MS	F
Trial 1				
Trials	1	1819.10	1819.10	13.10
Within	38	5278.61	138.91	
Total	39	7097.71		
Trial 2				
Trials	1	1342.69	1342.69	8.12
Within	38	6276.59	165.17	
Total	39	7619.28		
Trial 3				
Trials	1	1345.58	1345.58	7.16
Within	38	7136.62	187.81	
Total	39	8482.20		
Trial 4				
Trials	1	2272.61	2272.61	8.42
Within	38	10259.73	269.99	
Total	39	12532.34		
Trial 5				
Trials	1	2223.82	2223.82	7.64
Within	38	11065.81	291.21	
Total	39	13289.63		

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Table V

Analysis of Variance of Differences between Mean Performance and Level of Aspiration

Source of Variation	df	SS	MS	F
Trials	4	412.45	103.11	.65
Within	95	15029.11	158.20	
Total	99	15441.57		